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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/529,908

12/16/2005

Takako Yamaguchi

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01/22/2009

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EXAMINER

FRASER, STEWART A

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

01/22/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/529,908	<b>Applicant(s)</b> YAMAGUCHI ET AL.	
	<b>Examiner</b> STEWART A. FRASER	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-11 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed 10/9/2008 for Application No. 10/529908 has been entered and fully considered.
2. Claims 9-11 are currently pending and have been fully considered.
3. The 35 U.S.C. 102(b) and 35 U.S.C. 103(a) rejections presented in the office action dated 7/9/2008 are withdrawn.

### ***Claim Objections***

4. Claim 11 is objected to because of the following informalities:
  - Claim 11, line 2 contains a minor spelling error. The word “membrane” appears to be misspelled.
  - Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over KUORDA et al. (US Patent 6,171,730) in view of KOIKE et al. (US 2002/0130425).

With respect to claim 9, KUORDA teaches (Column 6, Lines 44-65) forming a mask having a thin chromium film 304 provided on a supporting member 310 (Figures 3A-3E). In further view of claim 9, KUORDA teaches (Claim 12) an exposure method for transferring a pattern to an object to be exposed by comprising the steps of bringing a first surface of the mask into substantially uniform contact with the object to be exposed by elastically deforming the mask and irradiating a second surface of the mask, which is brought into substantially uniform contact with the object to be exposed, the second surface being opposite to the first surface. KUORDA discloses (Column 3, Lines 58-67) that the aforementioned mask and an object to be patterned are aligned and subsequently exposed (Column 4, Lines 1-10). The KUORDA reference does not appear to explicitly teach the limitations of claim 9 pertaining to the formation of first and second alignment marks on the aforementioned mask.

However, the KOIKE reference recites [0054] forming first and second alignment marks on a mask. KOIKE teaches (Claim 39) forming a mask having a plurality of pattern formation regions in which mask circuit patterns are formed and a supporting region in which any mask

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circuit pattern is not formed. The supporting region holds the plurality of pattern formation regions while separating the plurality of pattern formation regions from each other. KOIKE further teaches (Claim 40) the first alignment marks being formed in such a manner that one or more of the first alignment marks are located in a portion, around each of the plurality of pattern formation regions, of the supporting region, and the second alignment marks are formed in such a manner as to be all located in a portion, outside an area formed by the plurality of the pattern formation regions, of the supporting region. KOIKE also discloses [0098] detecting a positional relationship of each relative distance between one of a plurality of the alignment marks located in one block to be exposed and one of a plurality of the marks located in another block to be exposed.

At the time of the invention, one of ordinary skill in the art would have been motivated to modify the teachings of KURODA and to include the teachings of KOIKE in order to devise a method for detecting the position and performing an alignment of an exposure mask with an object to be patterned. KOIKE indicates [0057] that since the first alignment marks are formed by exposure at a time in the supporting region of the mask and exposure of the mask for forming the mask circuit patterns thereon is performed by using the first alignment marks, the positional accuracy of the whole of the mask circuit patterns due to the first alignment marks can be significantly enhanced. By combining the teachings of the aforementioned references, one of ordinary skill in the art would be able to correct for mask misalignment during a contact exposure process. Therefore, the claims specified in the instant application would have been obvious at the time the invention was made.

***Response to Arguments***

8. Applicant's arguments with respect to claims 9-11 have been considered but are unpersuasive in view of the new ground(s) of rejection. In the response filed 10/9/2008, the applicant argues that the combination of YASUI, KURODA and SANGU does not teach or suggest the limitations of new claims 9-11 directed to a near-field exposure method. Specifically, the applicant argues that the aforementioned cited references do not teach a near-field exposure method involving a mask that has first and second alignment marks.

The examiner acknowledges the applicant's arguments and has withdrawn the 35 U.S.C. 102(b) and 35 U.S.C. 103(a) rejections of claims 1-8 presented in the office action dated 7/9/2008. However, in light of the applicant's newly added claims, the examiner has made a new grounds of rejection, incorporating the previously presented KURODA (US Patent 6,171,730) reference in view of KOIKE (US 2002/0130425).

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEWART A. FRASER whose telephone number is (571)270-5126. The examiner can normally be reached on Monday to Thursday 6:30 am to 3:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F. Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark F. Huff/  
Supervisory Patent Examiner, Art Unit 1795

/Stewart A Fraser/  
Examiner, Art Unit 1795